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RELATION OF SOCIOLOGY TO ANTHROPOLOGY

BY LESTER F. WARD

Almost any subject may be classified in more than one way. Anthropology is the science of man, and taken in its broadest sense it embraces everything that concerns the human race. It first received prominence at the hands of Paul Broca, the eminent student of man in his physical relations. Owing to his influence, it was long restricted to the study of the human body; but so appropriate a term could not be thus bound down, and to-day it has come to receive the broadest meaning of which it admits. The Anthropological Society of Washington, which was founded in 1879, introduced into its constitution the following classification of the science:

1. Somatology; 2. Sociology; 3. Philology; 4. Philosophy; 5. Psychology, and 6. Technology. These subdivisions were adopted, after prolonged and careful consideration, by such men as Maj. J. W. Powell, Director of the United States Bureau of Ethnology, Colonel Garrick Mallery, the eminent student of sign language and kindred subjects, and Prof. Otis T. Mason, Curator of Ethnology for the United States National Museum. It has been found during sixteen years' experience that every subject proper to be brought before the Society could be classed under some one of these heads.

Here, as will be seen, sociology is made a subdivision of anthropology, and properly so; but this does not in any way invalidate an entirely different classification in which sociology is made the generic science, and anthropology is looked upon as in some sense a part of sociology. It all depends upon the point of view. As man is the being with whom sociology deals, that science, of course, belongs to the science of man; but if we look upon sociology as embracing everything relating to associated man, a large part of the facts and phenomena of anthropology overlap upon its domain, and it becomes important to consider the relations subsisting among these phenomena. Moreover, the phenomena of association are not exclusively confined to

man. Sociologists are coming to pay more and more attention to phenomena among animals analogous to those displayed by men, and animal association is a well-known fact which is receiving increased attention; so that sociology is not wholly included in any view of anthropology.

But when we examine the two sciences closely we perceive that they differ generically. Anthropology, in dealing with man—*i. e.*, with a particular being or species of animal—is primarily a descriptive science. It is not concerned with laws or principles, but with material facts. Sociology, on the contrary, deals primarily with association and whatever conduces to it or modifies it. But association is not a material thing; it is a condition, and the science that deals with it is chiefly concerned with the laws and principles that produce and affect that condition. In short, while anthropology is essentially a concrete science, sociology is essentially an abstract science. The distinction is very nearly the same as between biology and zoölogy, except that anthropology is restricted to a single species of animal. Thus viewed, it is clear that it becomes simply a branch of zoölogy with classificatory rank below ornithology, entomology, mammalogy, etc. There is no other single species or even genus that has been made the subject of a distinct science, as might obviously be done—*e. g.*, hippology, the science of the horse, or cynology, the science of the dog.

It comes, however, wholly within the province of social philosophy to inquire into the nature of this being, man, whose associative habits form the chief subject of sociology. First of all, his position in the animal world needs to be understood. No possible good can come from ignoring the true relations of man to the humbler forms of life around him, while, on the other hand, if this relation is correctly understood, it furnishes one of the principal means by which man can learn to know himself. Accepting, therefore, the conclusions of the masters in zoölogy, among whom, as to the main points, there are no longer any differences of opinion, we must contemplate man simply as the most favored of all the "favored races" that have struggled up from a remote and humble origin. His superiority is due almost exclusively to his extraordinary brain development.

Very few have seriously reflected upon the natural consequences of this one characteristic—a highly developed brain.

Without inquiring how it happened that the creature called man was singled out to become the recipient of this extraordinary endowment, we may safely make two fundamental propositions, which tend to show that this question is not as important as it seems. The first is that if the developed brain had been awarded to any one of the other animals of nearly the same size of man, that animal would have dominated the earth in much the same way that man does. The other is that a large part of what constitutes the physical superiority of man is directly due to his brain development.

As to the first of these propositions, it is true that man belongs systematically to the highest class of animals, the placental Mammalia. It would have looked somewhat anomalous to the zoölogist if he had discovered that the dominant race to which he belonged must be classed below many of the creatures over which he held sway, as would have been the case if the organ of knowing had been conferred, for example, upon some species of large bird or reptile; but in fact something a little less anomalous, but of the same kind, actually occurs. The line along which man has descended is not regarded by zoölogists as by any means the most highly developed line of the mammalian class. It is a very short line and leads directly back through the apes and lemurs to the marsupials and monotremes, animals of much lower systematic order, the last named forming a partial transition to birds. Most of the other developed mammals, such as the Carnivora and Ungulata, have a much longer ancestry, and have really attained a far higher stage of development. In the matter of digits it is maintained that true progress is characterized by a reduction in their number, and that the highest stage is not reached until they are reduced to one, as in the horse. In this respect man is a slight advance upon the apes in having lost the thumbs of his feet. No one can deny that the power of flight would have been an immense advantage to man, yet few mammals possess this power, and it is chiefly confined to creatures of low organization.

It is difficult to conceive of a being entirely different in form from man taking the place that he has acquired; but if any one of the structurally higher races possessed the same brain development it would have had the same intelligence, and although its achievements would doubtless have been very different from

his, they would have had the same rank and secured for that race the same mastery over animate and inanimate nature. This will become clearer when we consider the second of the above propositions, which we may now proceed to do.

To what extent has brain development reacted upon man's physical nature? I cannot, of course, go fully into this question here, but nothing is better known to anatomists than that the erect posture is not the natural or primary one. It has been acquired by man within comparatively recent time. It is a legitimate inference that it is chiefly due to brain development: physiologically as a means of supporting the enlarged and correspondingly heavier head, which it would be difficult to carry in the horizontal position, and psychologically as the natural result of a growing intelligence and self-consciousness, which seeks to lift the head and raise it to a position from which it can command its surroundings. It is a common observation that those persons who possess the greatest amount of self-esteem stand straightest, and it is this same principle that has operated from the beginning to bring the human body more and more nearly into a vertical position.

Pari passu with this process has gone on the diminution of the craniofacial angle. The same influences that tended to raise the body from the horizontal to the vertical position tended also to carry the brain and upper part of the face forward and the jaws and mouth backward. It is not claimed that this reaction of the developing intelligence upon the physical form is sufficient alone to account for the development of the entire type of physical beauty attained by the most advanced human races. Esthetic considerations are needed to complete the process, and especially the powerful aid of sexual selection; but even the sense of beauty must be in great part ascribed to mental increase and refinement.

Nothing is more certain than that the faculty of speech is a product of intelligence. Both by direct effort and by hereditary selection the organs of speech received increment after increment of adaptation to this end. The means of intercommunication was the indispensable requirement, and this would be secured by any intelligent creature, no matter what the physical organization might be. Oral speech is by no means the only way in which such intercommunication is secured, and even if no organs had existed by which sound could be produced, some

other means would have been adopted. But man possessed sound-producing organs in common with nearly all animals. There is no evidence that he was specially favored in this respect. In developed man the larynx is more complicated than in most mammals; but this may be comparatively recent. In many animals it is greatly specialized. In birds it is far more elaborate than in man, being double and sometimes, as in the crane, enormously elongated and coiled into a trumpet. Who can doubt that with such an organ all birds could talk if they possessed ideas to communicate? The parrot and many other birds actually do distinctly articulate the words of human speech by imitation, but they lack the power to clothe them with thought. It would be easy to add a great number of other proofs of the all-sufficiency of the one leading characteristic of the human species—his superior brain development—to account for all the important features that distinguish him from the lower animals, but those already mentioned must suffice in this place.

Before leaving the general subject of the relation of man to the lower animals, it may be well to inquire more specifically into the qualities that are alleged to be distinctively human. As sociology deals chiefly with man, it is desirable to arrive, as nearly as possible, at a correct idea of what man is—not the loose conventional idea which, as we have just seen, is not only crude but in great degree false—but a true and fundamental idea, based on attributes that are not superficial, but that lie deep in his essential nature. Even if we are obliged to conclude that there is no direction in which man's superiority is not quantitative rather than qualitative—*i. e.*, a matter of degree rather than of kind—it will be worth while to consider this difference of degree. There are no hard and fast lines in nature, and the greatest leaps that seem to have been taken in cosmic evolution are such only when statically considered, and blend together when viewed in their dynamic or historical aspects.

Nothing is more frequently met with in literature than the statement that some particular quality under consideration constitutes an essential distinction between man and the lower animals. I have for many years been accumulating such statements, most of which readily yield to analysis. A few, however, are worthy of serious consideration, and we shall see whether

the claim that there exists anything distinctively human can be regarded as established. It is difficult to classify all these alleged distinctively human attributes in any logical order. I shall exclude, except in their collateral bearings, all physical differences and confine myself to those which can be called mental in the broad sense of the word. Thus circumscribed the natural subdivision would seem to be into affective and intellectual qualities; but in attempting such a subdivision I encounter many difficulties arising out of the interaction of these two great departments of the mind. Indeed, from what has already been said, it is obvious that the great distinction is intellectual, and that the developing intellect has reacted alike upon the physical form and the nervous system (sensory and emotional apparatus). If I were simply continuing the preceding argument and seeking to show that increased brain development is adequate also to account for observed psychic modifications I should, of course, reverse the order here employed; but that would perhaps be too much to prejudge the case. I shall therefore consider the lower faculties first and endeavor to rise successively in the scale.

One of the most modest claims is that of Comte, that it is only in man that we find the purely vegetative functions of life subordinated to the distinctively animal functions. The lower animals and, as he admits, the lowest types of men, according to this view, simply vegetate—*i. e.*, they do nothing but live—while the higher types of men not only live, but live for something, are conscious of living, which, he says, is the noblest conception we can form of humanity as distinct from animality.*

It is easy to see that he here refers to feeling as an end of life, but the same logic which prevents him from recognizing psychology as distinct from biology debars him from saying this in so many words.

Man is said to be the only animal that laughs, and if we restrict laughter to the modifications made in the facial muscles, this distinction is one of the most complete of all that have been insisted upon. But every one knows that the eye is strongly expressive of the sense of amusement, and certain animals, as the dog, express emotions with the eye that are closely akin to mirth. But men laugh from a number of motives, among which

* Phil. Pos. III, 1869, p. 494.

are joy and gladness, and it is these last that animals chiefly manifest. The psychologic basis of wit and humor is something very different from this, and belongs to the intellectual group of characteristics.

Crying, in the sense of a vocal manifestation of the sensation of pain, is, of course, common to man and most of the higher animals. Reptiles, and even fishes, also occasionally utter such sounds; but in the sense of weeping, usually accompanied by the shedding of tears, crying is as exclusively a human attribute as laughing. Schopenhauer, than whom no one has more acutely analyzed the mind, denies that we ever weep from the pain experienced, but only from its "repetition in reflection," and he defines weeping as "sympathy with one's self or sympathy reflected back upon its source."*

Sympathy proper—*i. e.*, sympathy for others, to which the last remark seems to lead—is certainly not an exclusively human affection. While it may be a question whether the defense of their young by nearly all animals is anything more than an instinct developed through natural selection for the protection of races, neither is it certain that the same instinct manifested by the human mother rises far above this. The pure article is therefore to be looked for between individuals that are not bound together by such powerful ties of interest; but there are many accounts of what seems like genuine sympathy on the part of dogs, and it is even less doubtful in the case of monkeys.

Sympathy, as the word implies, is a real though representative feeling, usually painful, and consists of a "realizing sense" of suffering in another being. There are two prerequisites to the existence of sympathy, *viz.*, the experience of a similar pain to the one sympathized with, and the power of recalling the sensation experienced. Still another condition might be added, which is distinct from these. The creature sympathizing must be able to derive from the facts observed an idea that the creature sympathized with is suffering pain. This last condition is a form of reasoning, while the remembrance of past painful states requires some degree of perfection in the structure of the brain. It is not therefore to be wondered at, that only the highest animals are capable of manifesting sympathy.

* Welt als Wille u. Vorst., Leipzig, 1859, Vol. I, p. 444.

The question whether sympathy increases with intelligence has been much discussed. To those who hold that it does so increase, it has been answered that among enlightened people it is not the most intelligent who manifest the most sympathy; that philosophers and wise men are often not sympathetic, while many women not possessed of abundant wisdom are intensely so. I have never felt that this was a sufficient answer, and if this were the proper place I would attempt to point out its fallacies; but as it does not directly bear upon the question of sympathy in animals, it must suffice to refer to the patent fact that altruism has steadily increased with the progress of civilization—*i. e.*, true sympathy is almost directly proportional to intelligence.

The quality which is of course most frequently referred to as peculiar to man is what is commonly called the moral sense. It is believed by many that man possesses a special faculty by which he can unerringly distinguish right from wrong. This, of course, represents a crude stage of philosophy, in which observation plays no part. But some very respectable philosophers have maintained that there is an abstract right and wrong which may be known and upon which a science of pure ethics can be based. Not to speak of Kant's rather obscure statement of this doctrine, it is worth noting that Herbert Spencer set out from this point of view and defended it in his *Social Statics*, but in his later works repudiated it as not sustained by the great body of facts that he had gleaned from the history of all races.

Paley maintained that the power to distinguish good from evil grew out of the expectation of reward and punishment, and Darwin has shown that the moral sense as thus defined certainly belongs to some of the higher animals. In most civilized men the "categorical imperative" is so strong that it is no wonder that it should be regarded as a special endowment of human nature; but every one knows in his own experience with the world that there are many fully civilized men who lack the ethical sense on certain subjects, even though it may be fully developed as regards all others. Who, for example, does not know certain persons who make it a principle of life never to surrender money until compelled, whatever may be the obligation to do so? The saying that "if you wish to make an enemy of a friend, lend him money" is based on the common

observation that a full moiety of mankind consider it a hardship to have to return money that they have borrowed and used without giving any equivalent. This is only one of a long list of bad traits in human nature, these being simply cases in which the ethical sense is not fully developed. So prevalent is this that it is a common remark that one only occasionally finds a person who is thoroughly upright in all matters. There is a "screw loose" somewhere in almost every one, so that it is considered necessary to praise one who always does as he should do.

Bishop Whately strikes the keynote in the parenthetical part of the following remark: "The moral faculty, or power of distinguishing right from wrong (which appears also to be closely connected with abstraction, without which it could not exist), is one of which brutes are destitute."*

It is probably true that brutes are destitute of the power to represent the pains of others to any great extent, and it is this power that forms the basis of the moral sense; yet I have myself frequently observed in the case of dogs which I knew had never themselves been shot, but had seen many other animals killed and wounded by shooting, that they always recoil when a gun is pointed at them. They certainly must *conclude* that the gun if discharged when pointed at them will produce the same effect on them that it does on other animals. There is no room for instinct or automatism here, and I cannot doubt that they actually represent to themselves the pain that they see wounded animals manifest. What impressions they may derive from the frequent sight of animals thus rendered lifeless is only a matter for speculation, but there is no doubt that one of the first facts about which a dawning intellect would reflect is death.

We may next consider the faculty of volition. Says Dr Carpenter: "Whilst we fully recognize the possession by many of the lower animals of an intelligence comparable (up to a certain point) with that of man, we find no evidence that any of them have a volitional power of *directing* their mental operations at all similar to his."† It is not, of course, denied that animals possess will and are governed by it in their actions,

* Logic, Appendix No. 1, § xxiii, American edition, 1854, p. 253.

† Mental Physiology, p. 105.

but it is supposed that man has a power, not possessed by them, of deciding among many conflicting motives which one to obey. This need not necessarily involve the acceptance of the doctrine of free will in the popular sense. Schopenhauer, who, while defending a form of that doctrine, denies the *liberum arbitrium indifferentiæ*, remarks :

"Although animal and man are determined with equal necessity by motives, man possesses over the animal a perfect power of choice (*Wahlentscheidung*), which is often regarded as a freedom of the will, although it is nothing but the possibility of a fully fought out conflict between several motives, of which the strongest necessarily determines his act." *

A discussion of the question of free will would obviously carry me much too far afield ; but there is one aspect of this question which is so important and so little insisted upon that it may appropriately receive mention. I will introduce it by quoting a passage from that acute thinker, Professor Joseph LeConte. He says :

"There are four planes of matter, raised one above the other : 1. Elements ; 2. Chemical compounds ; 3. Vegetables ; 4. Animals. Now, there are also four planes of force similarly related to each other, viz., physical force, chemical force, vitality, and will. . . . With each elevation there is a peculiar force added to the already existing, and a peculiar group of phenomena is the result. As matter rises only step by step from plane to plane, and never two steps at a time, so also force, in its transformation into higher forms of force, rises only step by step. Physical force does not become vital except through chemical force, and chemical force does not become will except through vital force. . . . I might add still another plane and another force, viz., the human plane, on which operate, in addition to the lower forces, also free will and reason." †

This just and luminous conception I have myself elaborated in an article on "The Natural Storage of Energy." ‡ Its application here is this : Every creature, including man, is undoubtedly determined by this concourse and storage of forces, and in this sense a man's acts are indeed products of his constitution ;

* *Welt als Wille*, I, 350, 351.

† *Pop. Sci. Monthly*, vol. IV, p. 167.

‡ *The Monist*, vol. V, pp. 247-263.

but it is possible to abstract all these antecedent agencies and contemplate man solely with reference to the future. Looked at for just what he is, regardless of how he became so, he appears as a source of independent energy, and in this sense his will is free. But this helps us little to distinguish the human from the animal will, for, except in the degree of this initiative power, the same seems to be true of the one as of the other. Dr Carpenter attempts to draw the line between children and adults; but this is obviously to beg the question, since no age can be fixed at which any wholly new power is added.

The last of the affective faculties to be considered is the sense of beauty. Have animals any esthetic sentiments? Half a century ago this question would have received an almost unanimous negative answer. To-day every well-informed person knows that the true answer is an affirmative one. The two great facts of sexual selection among animals and the cross-fertilization of flowers by insects have abundantly shown that nearly or quite all living creatures have tastes and admire certain forms and colors. Not only is this so, but, while the tastes of animals, like those of men, differ widely, there is a general standard which is substantially the same for both. The ostrich feathers, which are the admiration of the social world, are the products of a sense of beauty in the ostrich. The peacock, the pheasant, and the bird of paradise owe their beauty to sexual selection. The antlers of the stag, that can engage the attention of a Landseer, are secondary sexual characters, utterly useless except as pure ornaments with which to win the favor of mates that have created them by withholding their favors from those in which these ornaments fell below their ideals of beauty. And what is considered more beautiful than flowers? Yet every flower is an expression of some insect's ideal of beauty; otherwise it could never have come into existence. Paleontology teaches that plants with showy flowers appeared on the earth simultaneously with nectar-seeking insects; and the more we study the flowers and insects now living the clearer it becomes that the same process is still going on, determining size, form, color, and fragrance.

But, it may be said, man is the only creature that artificially adorns himself. M. de Quatrefages has laid great stress on this fact, and deservedly so, for, although he did not understand it,

this involves one of the most important principles of both anthropology and sociology. The principle is none other than the one upon which I have so often insisted, that the environment transforms the animal, while man transforms the environment. Though it is much broader in its scope, we may here restrict it to the esthetic sense. Both animals and men possess this sense. The former satisfy it by acts which, in the course of generations, produce physical modifications in their organic structure. The latter, unwilling to wait the slow process of organic change, create the objects of their admiration. Bodily ornamentation is probably the earliest form in which the esthetic sense of man found expression. Strange, grotesque, absurd, and even injurious as this form of art has been in its rudest stages, it is still the product of man's efforts to satisfy whatever sense of beauty he possessed. In the course of its development it at last assumes the form of fine art, and is extended beyond the body and carried into all the great fields of natural beauty. Says Professor Huxley: "Among the many distinctions which have been drawn between the lower creatures and ourselves, there is one which is hardly ever insisted on. . . . It is this, that while, among various kinds of animals, it is possible to discover traces of all the other faculties of man, especially the faculty of mimicry, yet that particular form of mimicry which shows itself in the imitation of form, either by modeling or by drawing, is not to be met with. As far as I know, there is no sculpture or modeling, and decidedly no painting or drawing, of animal origin."*

This is all very true, and it certainly constitutes one of the most trenchant distinctions between men and animals. Its explanation is not far to seek. Having now passed in review all the more important affective attributes, we may next proceed to examine those which belong to the intellectual side of man's nature, in the hope that they may furnish the key to the various questions involved in the class already considered.

First and foremost among these stands the attribute of rationality. Do animals reason? This is the old question, and it must be frankly admitted that the answer which flows from all the facts is an affirmative one, at least so far as concerns the most highly developed animal races, especially those that have been longest associated with man, as the dog and horse. Rats,

* Science and Education Essays, London, 1893, pp. 276-277.

too, which must constantly scheme to escape from man, are exceedingly sagacious. But such wholly wild animals as wolves show scarcely less intelligence, and the wisdom of the elephant is proverbial. Length of life seems to have much to do with it, and to show that acquired experience is utilized as it is by man. Now, if we look over the whole field we find that the several affective attributes above enumerated and numerous others chiefly confined to man, but faintly displayed by certain animals, are confined and ascribed to the same animals that are believed to exhibit the beginnings of reason. Is there a causal connection between the two? I maintain that there is, and that the possession of the affective powers is the direct consequence of the corresponding power of reason. In nearly every case I have discussed I have carried it to the point where this hypothesis not only would apply, but seemed necessary to complete the explanation. We saw that sympathy and the moral sense in general depends absolutely upon a power of representation sufficiently strong to react upon the centers of feeling, and this representative power is purely intellectual. We saw that volition, to rise at all above the mere animal impulse, depended upon a power of choice between motives, which is nothing else than to say that foreseen future or remote benefits influence action more strongly than immediately present ones. This, again, is a form of reason. And finally we saw that artistic production depends upon the power to frame and execute an ideal, and therefore has entirely to do with ideas as distinguished from the mere feelings which actuate the lower animals.

In my *Psychic Factors*, Part II, I have endeavored to set forth the manner in which the rational faculty took its rise, primarily as an aid to the will in better securing the ends of existence, and have then followed its progress through its incipient stages and onward in its remarkable development until it wholly lost sight of this original egoistic function and became the servant of humanity in general, even to the sacrifice of self. And it is in these higher stages that we find the most marked cases of purely human powers—powers of which animals, even the highest, scarcely manifest a rudiment. Language, properly so called, consists of symbols for things, actions, and relations, and these are all rational abstractions. Every name or common noun is an embodied idea and may embrace any number of individuals.

It is doubtful whether any animal could perform the mental operation required in saying dog, horse, mountain, river. All the nouns in an animal's language would be proper nouns, the names of particular dogs, horses, mountains, and rivers. The same would be true of verbs. Indeed, the ruder human languages show a tendency in this direction. The word *go* is a very abstract term, and certain Indian languages have no such word. All verbs of going must specify the manner of going, as to go-over-the-mountain, to go-to the river, to go-on horse-back, etc.—*i. e.*, early languages, for want of the power of abstraction on the part of the people possessing them, become *holophrastic*. Such people speak in phrases instead of words. This idea might be followed out much further.

After language, which is itself an art, we find man developing other arts, not merely the arts of decoration, already considered, but the arts of self-protection and self-preservation. These depend on inventive power, which, though wholly rational, is a power very early developed. Art of every kind is exclusively human. Man is the only creature who uses tools. The tools and weapons of all animals are a part of themselves, and are genetic products; those of man are part of their environment, and are mechanical products. Everything that pertains to culture is of this last class. Civilization is exclusively artificial and exclusively human. Art is essentially teleological—*i. e.*, it is a product of design—and there is no evidence that animals possess this faculty. Many of the lower creatures do indeed lay in stores for the future, but it is always the result of an instinct genetically developed as a condition to survival. Clustering round this idea of prevision there is a large class of phenomena which seem to be especially human. Besides purpose, intention, and provision, there are the states known as anticipation, ambition, and aspiration, which all grow out of the power to forecast the future. It is not believed that the lower creatures live in the future in any such sense. They have their wants, even yearnings, no doubt, and they have expectations, and perhaps hopes, but they have no anticipations in the sense of feeling the pain or pleasure of experiences that are not present. This is a representative power which is wholly intellectual. Men really both suffer and enjoy more in anticipation than in participation. Imagine the criminal condemned to death, or, to

take a simpler case, think how much of the pain of a surgical operation is due to the antecedent realization of what must be undergone. It is the same with enjoyments, not merely the simpler physical ones, but especially the remote mental ones, and the sacrifices of a long and laborious life are cheerfully made in anticipation of the foreseen results.

Self-consciousness is often referred to as a distinguishing characteristic of man. Many, however, fail to gain a clear conception of what this faculty is. Dr Carpenter confounds it with the "power of reflecting on their own mental states,"* while Mr Darwin associates it with abstraction and other of the derivative faculties. It is certainly something much simpler than introspection, and has an earlier origin than the highly derivative speculative faculties. If it could only be seized and clearly understood, self-consciousness would doubtless prove to be the primary and fundamental human attribute. Unlike reason, it has no roots in the animal stage; but neither do all men possess it. Our language seems to lack the proper word to express it in its simplest form. "Think" approaches this most nearly, and man is sometimes described as a "thinking being." The German language has a better word, viz., *besinnen*, and the substantive *Besonnenheit* seems to touch the kernel of the problem. Schopenhauer says: "The animal lives without any *Besonnenheit*. It has consciousness—i. e., it knows itself and its weal and woe; also the objects which produce these; but its knowledge remains constantly subjective, never becomes objective: everything that it embraces appears to exist in and of itself, and can therefore never become an object of representation nor a problem for meditation. Its consciousness is thus wholly immanent. The consciousness of the savage man is similarly constituted in that his perceptions of things and of the world remain preponderantly subjective and immanent. He perceives things in the world, but not the world; his own actions and passions, but not himself. As now, through infinite gradations the light of consciousness rises, *Besonnenheit* enters more and more into it, and thus it gradually comes about that occasionally, though rarely, and with very different degrees of clearness, the question flashes through his head, 'What does it all mean?' or, 'How has it been brought about?' The first question, when it attains

* Mental Physiology, p. 102.

great clearness and persistency, makes the philosopher; the second, the artist or poet; and thus the high calling of both these has its roots in the *Besonnenheit*, which first of all springs from the clearness with which they become conscious of the world, and are thereby led to the contemplation of it. But the whole process is due to the intellect gaining the ascendant and at times breaking loose from the will, whose servant it originally was."

This self-orientation or incipient reflection is thus seen to be something quite different from self-consciousness in the usual sense. It is not so much self as it is the outside world of which the intellect becomes conscious. It is not a subjective but an objective phenomenon, and in so far as self is concerned, it is objectively contemplated as part of the world. This early intellectual state is succeeded by those higher powers of introspection, speculation, reflection, abstraction, and generalization which characterize the developed mind of man, and all this is accompanied by the general differentiation of the faculties and refinement of the mental and moral organization of the race. Among the more important of these powers are those of creating new wants and of increasing the supply necessary to satisfy them. No animal accomplishes this. The animal's wants are adjusted by the slow process of adaptation to the sources of supply, and even when these wants are all supplied it is not probable that any higher ones arise. Not so with man. The moment the coarser and more essential physical wants are supplied he feels new ones, both physical and mental, arise, and he proceeds to supply these.

To what extent the fact of association has been a factor in producing this last fundamental difference between men and animals is one of the leading questions in sociology. For my own part, I am disposed to attribute it, directly or indirectly, almost wholly to this cause.
